

### **REMARKS**

Claims 1-11 and 14-27 are pending in this application. By this Amendment, the specification and claims 2-11 are amended, claims 12-13 are canceled, and new claims 14-27 are added. Support for the amendments to the specification can be found in the original specification, for example, at page 7, line 3 – page 9, line 5. Support for the amendments to claims 2-11 and for new claims 14-27 can be found in the original specification, for example, at page 3 line 31 – page 4, line 5; page 4, lines 15-25; page 5, lines 22-23; page 10, lines 12-30; page 11, lines 28-32; page 12, line 24 – page 13, line 7; and page 13, lines 17-19; and in original claims 1-13. No new matter is added by these amendments.

#### **I. Objections to the Disclosure**

The Office Action objects to the disclosure for various informalities therein. In particular, the Office Action alleges that the specification identifies a reference to T10 in Table 1, but Table 1 includes two references to T1 and does not include T10. Applicants respectfully submit that Table 1 includes a reference to T10, but that the reference is broken up into two lines, so that “T1” appears above “0.” The specification is amended herein to correct this issue. Reconsideration and withdrawal of the objection in light of these amendments are respectfully requested.

#### **II. Claim Rejections Under 35 U.S.C. §112**

The Office Action rejects claims 1-12 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention.

In particular, the Office Action asserts that there is insufficient antecedent basis for the term “the composition” in claim 2, and that the term “such as” renders the claim indefinite. Herein, claim 2 is amended to replace the term “the composition” with the term –the mixture of monomers– and to remove the “such as” language.

The Office Action also asserts that claims 3-9 and 12 are indefinite because of the inclusion of both broad and narrow ranges or limitations. Herein, claims 3-9 are amended to remove the narrow ranges or limitations, which are presented in new claims 14-27, and claim 12 is canceled.

The Office Action also rejects claims 12 and 13 as indefinite, based on the phrase “based (co)polymer obtainable by a process according to claim 1,” because of the term “obtainable.” Herein, claims 12-13 are canceled.

For at least the above reasons, Applicants respectfully submit that the rejections under 112, second paragraph, have been overcome and that the claims are not indefinite. Accordingly, reconsideration and withdrawal of the rejections is respectfully requested.

### **III. Claims Rejections Under 35 U.S.C. §102 and 35 U.S.C. §103**

The Office Action rejects claims 1-13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5189069 to Speikamp et al (Speikamp). The Office Action further rejects claims 1 and 3-13 under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent 6153658 to Paleja et al (Paleja). The Office Action rejects claims 12 and 13 under 35 U.S.C. §103(a) as unpatentable over W.O. 00/17245 to Van Swieten (Van Swieten). Claims 12-13 are canceled herein, rendering the rejection of those claims moot. Applicants respectfully traverse the rejections with respect to the remaining claims.

Neither Speikamp nor Paleja teaches or suggests an essentially vinyl chloride-free suspension polymerization process wherein an initiator with a half-life of 60 minutes or less is (semi-)continuously dosed to the reaction mixture at the polymerization temperature from the point in time at which none of the monomer has been polymerized until at least 70% of all the monomer is polymerized, as referred to in claim 1.

Instead, while Speikamp may disclose an essentially vinyl chloride-free suspension polymerization process, Speikamp teaches the addition of initiator to the polymerization mixture prior to its heating to the polymerization temperature. Dosing of initiator at the polymerization temperature only commences after at least 70% of the total amount of styrene has been polymerized. See Speikamp at col. 3, lines 16-35. However, claim 1 requires starting the dosing of initiator at the polymerization temperature prior to the conversion of any styrene.

Further, while Paleja may also disclose an essentially vinyl chloride-free suspension polymerization process, Paleja teaches a process of the steps (i) polymerizing a monomer using initiator with a half life of one hour in benzene of 70-110°C and (ii) adding additional monomer and initiator then polymerizing to completion. See Paleja at col. 2, lines 2-15. According to Examples 1-3 of Pelaja, a styrene containing mixture is heated from 20°C to 65°C and then dilauroyl peroxide (initiator) was added and the temperature was increased to the polymerization temperature (90°C). Thereafter, the mixture was cooled to 70°C and additional initiator and monomer was added and the temperature was subsequently increased to 90°C where polymerization continued. Similarly, in Example 5 of Pelaja, the mixture temperature was lowered from the polymerization temperature to 70°C when additional initiator was added and subsequently the mixture was returned to the polymerization temperature. See Pelaja at col. 6, lines 18-39 and col. 7, lines 11-19. In contrast, the process of instant claim 1 requires dosing of initiator at, not below, the polymerization temperature. Pelaja fails to teach or even suggest dosing the initiator at the polymerization temperature, but instead teaches dosing the initiator below the polymerization temperature.

Neither Speikamp nor Paleja recognizes or addresses such processes or discusses the advantages that could be obtained by using such processes, nor provides any motivation for providing these features. For at least these reasons, Applicants respectfully assert that the

claims are now in condition for allowance. Reconsideration and withdrawal of the rejections over Speikamp nor Paleja are respectfully requested.

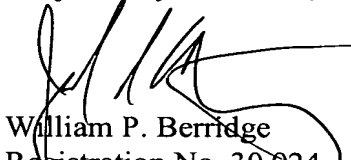
Although Applicants do not necessarily agree with the rejections of claims 12-13 as unpatentable over the cited references, in the interest of expediting prosecution, claims 12-13 are canceled rendering the rejections moot.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: May 24, 2006

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